AMENDMENTS TO THE CLAIMS

Please cancel claims 15 to 20, without prejudice or disclaimer of subject matter, and amend claims 1, 3, and 9 to 14, as shown below. This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.   (Currently Amended) A data store query system comprising:

a data store that includes a collection of records ~~data~~;

a sorted result buffer; and

a query interface operable to receive a limit and order query that includes both of an order criteria and a limit criteria, the limit criteria specifying a maximum number N of records for a result set of records satisfying the limit and order query, to fill the sorted result buffer with a first N number of records from the data store, to iteratively order the sorted result buffer based upon the order criteria, iteratively compare remaining records in the data store against a Nth record in the sorted result buffer based upon the order criteria, to iteratively replace the Nth record in the sorted result buffer with a remaining record in the data store based upon iteratively comparing remaining records in the data store against the Nth record in the sorted result buffer, and to output the sorted result buffer as the result set of records ~~and to identify data in the data store that satisfies the limit and order query using the sorted result buffer~~.

2.   (Original) The data store query system of claim 1 wherein the data store is a database or a fast cache.

3.   (Currently Amended) The data store query system of claim 1

wherein the collection of records further comprises ~~data includes~~ a table having an attribute, and

wherein the query interface is operable to receive the limit and order query placing order constraints on the attribute.

4.   (Original) The data store query system of claim 1 wherein the query interface creates a revised sorted result buffer in response to a modification of the limit and order query, the modification being made during a pause in execution of the limit and order query.

5.   (Original) The data store query system of claim 1 wherein the sorted result buffer is stored in random access memory.

6.   (Original) The data store query system of claim 1 wherein the query interface is operable to receive the limit and order query formulated using standard query language (SQL).

7.   (Original) The data store query system of claim 1 wherein the query interface is operable to receive the limit and order query that requests the first or last N records satisfying the query.

8.   (Original) The data store query system of claim 1 wherein the query interface is operable to identify data in the data store that satisfies the limit and order query using the sorted result buffer by iteratively reformulating the limit and order query until the sorted result buffer contains data satisfying the limit and order query.

9.   (Currently Amended) A method for satisfying limit and order queries including:
        receiving a limit and order query that includes both of an order criteria and a limit criteria, the limit criteria specifying a maximum ~~number~~ number N of records for a result set of records satisfying the limit and order query;
        filling a sorted result buffer with a first N number of records from a data store; ~~and~~
        ~~iteratively reformulating the limit and order query and updating the sorted result buffer until the sorted result buffer contains the result set of records satisfying the limit and order query~~
        iteratively ordering the sorted result buffer based upon the order criteria;
        iteratively comparing remaining records in the data store against a Nth record in the sorted result buffer based upon the order criteria;

iteratively replacing the Nth record in the sorted result buffer with a remaining record in the data store based upon iteratively comparing remaining records in the data store against the Nth record in the sorted result buffer; and

outputting the sorted result buffer as the result set of records.

10. (Currently Amended) The method of claim 9 wherein the limit and order query is formatted ~~specified~~ using standard query language (SQL).

11. (Currently Amended) The method of claim 9 wherein filling the sorted result buffer with the first N number of records from the data store includes:

scanning the data store without consideration of the order criteria to identify records otherwise satisfying the limit and order query; and

placing identified records into the sorted result buffer until the sorted result buffer includes the maximum number of records specified by the limit criteria.

12. (Currently Amended) The method of claim 9 wherein the limit and order query requests the first N records satisfying the order criteria ~~query, and further wherein reformulating the limit and order query includes:~~

~~identifying a last record of the sorted result buffer; and~~

~~reformulating the limit and order query to include a search criteria requesting records occurring before the last record in the order specified by the order criteria.~~

13. (Currently Amended) The method of claim 9 wherein the limit and order query requests the last N records satisfying the order criteria ~~query, and further wherein reformulating the limit and order query includes:~~

~~identifying a first record of the sorted result buffer; and~~

~~reformulating the limit and order query to include a search criteria requesting records occurring after the first record in the order specified by the order criteria.~~

14. (Currently Amended) An apparatus comprising a storage medium having instructions stored thereon, the instructions including:

a first code segment for receiving a limit and order query that includes both of an order criteria and a limit criteria, the limit criteria specifying a maximum number N of records for a result set of records satisfying the limit and order query obtaining a desired data set from a data store by executing a query, the query designed to return a set of data records from the data store and including a limit condition and an order condition;

a second code segment for filling a sorted result buffer with a first N number of the set of data records from a data store;

a third code segment for iteratively ordering the sorted result buffer based upon the order criteria pausing execution of the query;

a fourth code segment for iteratively comparing remaining records in the data store against a Nth record in the sorted result buffer based upon the order criteria; modifying a threshold condition of the query, whereupon the first code segment resumes execution of the query and the second code segment filters the set of data records within the sorted result buffer based on the threshold condition to obtain a filtered data set; and

a fifth code segment for iteratively replacing the Nth record in the sorted result buffer with a remaining record in the data store based upon iteratively comparing remaining records in the data store against the Nth record in the sorted result buffer; and

a sixth code segment for outputting the sorted result buffer as the result set of records determining that the filtered data set within the sorted result buffer matches the desired data set.

15. to 20. (Cancelled)